Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
	)	
Amendment of Part 90 of the	)	WT Docket No. 01-146
Commission's Rules and Policies for	)	RM-9966
Applications and Licensing of Low Power	)	
Operations in the Private Land Mobile	)	
Radio 450-470 MHz Band	)	

Reply Comments of Enalasys Corporation

Enalasys Corporation ("Enalasys"), a leading manufacturer of Heating, Ventilation and Air Conditioning ("HVAV") diagnostic equipment, by its counsel, hereby submits these reply comments to the Notice of Proposed Rulemaking in the above-captioned proceeding which proposes new regulations to recognize the diversity of low power operations in the 450-470 MHz band.

In its comments in this proceeding, Enalasys supported the Commission's proposals, but explained the need for low power, itinerant, nationwide, uncoordinated frequencies to be used for data transmission. Enalasys recommended that the Commission designate a small number of the proposed Group C frequencies for data transmission on a primary or co-primary basis. This action would certainly remove any lingering uncertainty about perceived problems associated with permitting data on a secondary basis to voice transmissions on the Group C frequencies.

As Enalasys and others in this proceeding have pointed out, even in the four years since the LMCC plan was offered to the Commission, the need for wireless data transmissions has grown significantly.[1] Indeed, it is clear that the very distinction between voice and data is becoming increasingly blurred.[2] Moreover, as new applications

[1] See Comments of Dataradio COR, LTD, Motorola, Enalasys Corporation, and Trimble Navigation Limited. As stated in its Comments the number of RTK systems is expected to grow by 135%.
[2] See Comments of Motorola

for wireless data have proliferated, administrative labels such as "fixed data" and "telemetry" have lost much of their utility.[3] If then, the Commission seeks to attempt a dispositive allocation of spectrum for low power use, it must recognize the new environment and adopt regulations that are sufficiently flexible to accommodate it.

Spectrum Sharing

The Commission has expressed its concern that it is difficult for itinerant data applications to share spectrum even on a secondary basis. In fact, however, there are many data applications, typified by the Enalasys system, that are perfectly able to share spectrum, even on a secondary basis with little or no threat to anyone. As explained in its comments, in the Enalasys system sensor/transmitters are attached to five specific points of an HVAC system. These devices are polled from a temporary site in a home by a transmission of a few milliseconds. Then, in predetermined order, each device transmits data on the measured parameters of the HVAC system. Each transmission is approximately 250 milliseconds long. This operation takes place three times (once each for parameters associated with fan, heating and air-conditioning). The Enalasys transmitters all employ carrier sense technology to ensure the use of "clean" spectrum. When the diagnosis of HVAC parameters is complete, the transmitters are disconnected and then taken elsewhere. One cannot imagine a more benign spectrum user. Certainly, systems designed to transmit in intermittent or occasional millisecond bursts, that use carrier sense technology to seek out quiet spectrum, and that have automatic provisions to cease transmissions make better spectrum neighbors than some analog voice operations that may transmit over minutes at a time. Data transmissions that share these characteristics should reasonably be able to operate on a secondary basis on all the Group C frequencies and Enalasys urges the Commission to take this approach. There is every benefit to be achieved from permitting such operation and no useful public purpose to be served from not doing so.

Enalasys continues to believe that the Commission should recognize the growing number of applications that would benefit from the ability to transmit on an uncoordinated, itinerant basis by designating a small number of Group C frequencies for primary data use. If other frequencies become crowded, as is so often the case, data operations must have some refuge for their operations. But, as indicated above, the Commission should not shrink from permitting the secondary use of data transmission systems on all the Group C frequencies. Rather, the Commission should define the types

[3] See Comments of Motorola. It is not clear whether itinerant spectrum use fits neatly within the meaning of "fixed" or "mobile." It is certainly not clear why such a distinction should matter. The Commission points out that Note 62 authorizes fixed operations on a secondary basis to land mobile operations, but surely Note 62 should not limit the Commission's enabling of itinerant services because by some lights (or for some short period of time) they might be deemed "fixed."

of operations that will clearly pose no threat to primary voice applications. This is essentially what the Commission has already done for unlicensed transmitters operating under Part 15 of its rules.[4] By defining operating limits – duty cycle, length of transmissions, manual and automatic shut-off provisions – the Commission can assure that transmitters can be operated with little threat of interfering with or crowding out other applications.

Miscellaneous Matters

Enalasys agrees with those who have opposed delay of non-coordinated use of the ten Group C frequencies used in hospitals for medical radio telemetry until October 2003, the deadline for medical telemetry systems to vacate the spectrum. There has been no showing that continued low power operations on this spectrum, even on an itinerant basis, is likely to have any additional impact on wireless medical telemetry operations. Moreover, there are now suggestions that hospitals have been unable to quickly vacate the 460-470 MHz band.[5] Indeed, one party has already taken advantage of this rulemaking proceeding to request an extension of the October 2003 deadline.[6] It would surely come as no surprise should this informal request for extension soon be followed by other, more formal requests. While Enalasys does not oppose granting hospitals whatever reasonable time is necessary for the transition to the new WMTS bands, we strongly believe that the Commission's ongoing efforts to promote more efficient use of the private land mobile spectrum cannot continue to be held hostage to what may well be a transition period of undetermined length.

Enalasys also questions the need to exclude from the Group C pool the four frequencies used for dockside operations.[7] While it is not clear how to deal with the possibility of itinerant operations in proximity to dockside operations, it is surely the case that in most of the country, the protection of dockside operations is not a concern. It would seem inefficient to exclude the dockside frequencies from itinerant use merely to protect dockside operations in just a few places. The demand for spectrum is simply too great to write off four frequencies lightly. It is incumbent upon the Commission to devise a plan that would protect the dockside frequencies while still making the spectrum available on a nationwide basis.

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[4] See Section 15.231 of the rules. Significantly, the Commission has recently proposed to remove its restriction on the transmission of data under Section 15.231(a).

[5] See Comments of Phillips Medical Systems

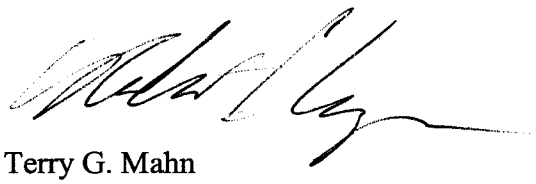
[6] See Comments of Alina Health Systems

[7] See Comments of Motorola

Conclusion

Enalasys applauds the Commission's efforts to serve the low power community and make more efficient use of the 450-470 MHz band. It asks only that the Commission recognize the growing need for itinerant data operations and that in many cases data transmissions are limited and pose little threat of interference to voice communications. As a safety net, however, Enalasys asks the Commission to designate some few of the Group C frequencies for data transmissions on a primary or co-primary basis. This would seem a reasonable compromise between the need to protect primary voice communications on most of the Group C frequencies and the obligation to provide for the needs of new communications systems that are dependant upon the transmission of data.

Respectfully submitted,



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November 13, 2001